Exploring Educational Attainment between the Elite and the NEET

Exploring Educational Attainment between the Elite and the NEET: A contemporary analysis of British Household Panel Survey Data

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Abstract

In the sociological analysis of educational attainment, historically there has been an orientation towards the analysis of under-achievement. Research has routinely focussed on young people with poorer academic qualifications and those that are not engaged in education, employment or training. Traditionally educational attainment was clearly stratified and young people from less advantaged social backgrounds tended to be less successful. In recent decades an increasingly large proportion of young people have remained in education for longer periods. There has been an explosion in participation in further and higher education. Recent cohorts of young people have achieved more advanced levels of qualifications, which in previous decades were restricted to young people from more advantaged social backgrounds. More educationally successful young people have gradually become the subject of sociological investigation. The sociology of youth has arguably focused on two polarised educational groups.

In this paper we attempt to explore the mid-ground between these two educational groups. We undertake secondary analysis of the British Household Panel Survey (BHPS) to characterise members of this 'middle' group. The BHPS is a major longitudinal data resource which tracks young people within households and facilitates analyses of educational attainment, and activities in young adult life. We examine the 'middle' group in early adulthood and comment upon how their education and economic activities compare with the activities of their more or less educationally advantaged peers. Our results indicate that there is not a clearly defined 'middle' group between those that are NEET and those that are elite. We are therefore cautious of making extended claims about the middle without further exploration. What is perhaps more clear, however, is that young people in the 'middle' group differ in their economic activity in early adulthood compared with other groups. The 'middle' group make the transition from education into employment more readily. The consequences of these successful early transitions into employment may have consequences later in the life course. This is an area that requires further research.

Key Words: Youth Transitions, Sociology of Youth, Educational Attainment, GCSE, Missing Middle, British Household Panel Survey.

Introduction

In a recent paper Roberts (2011) makes an appeal to youth researchers to concentrate more analytical attention on ordinary young people and he deploys the term 'missing middle' to describe this group of young people who are often absent in the accounts produced within youth research. He also petitions researchers to better document the experiences of this group through the secondary analysis of large-scale datasets (p.22). This paper is an initial attempt at identifying the presence of a 'missing middle', and exploring its potential analytical benefits.

Roberts (2011) asserts that youth research has become blinkered, with studies of youth that are obviously at risk of social exclusion shadowing the seemingly 'ordinary'. He provides a plausible account of some of the developments in youth research which support this position. Our preliminary view is that the sociology of youth is a fragmented sub-discipline. We assume that it would be possible to undertake a thorough examination of the research orientation of the sociology of youth, however it would be far from straightforward. Research on education is often located within the neighbouring sub-discipline of the sociology of education, and similarly research on employment (and unemployment) is frequently located within the sociology of work. At the same time youth research is sometimes located in gender studies and other areas of sociology. Therefore we are sceptical that anything less than a thorough review of the sociology of youth will reach a partial assessment of whether or not the discipline has neglected 'ordinary' youth.

Despite this scepticism we approach the idea of a 'missing middle' with an open mind. We therefore provide our own review, which partially overlaps with Roberts' (2011) account, of the orientation of the sociology of youth transitions. This is an honest attempt to explore and contextualise the conception of a missing middle prior to our empirical investigation. In the paper we document our first attempt to undertake systematic secondary analyses of large scale social survey data to examine the conception of a 'missing middle'. We begin by endeavouring to identify a 'middle' group of ordinary young people. We document the characteristics of this group, and then comment upon how they differ from their counterparts that are more or less successful in education. Finally, we follow a synthetic cohort of young people into early adulthood to explore the activities and progress of the 'middle' group in comparison with their more or less educationally advantaged peers.

Youth Transitions

There is disagreement regarding the research value of studying youth transitions. Some commentators have been critical of the study of youth transitions (notable examples include Jeffs and Smith 1998; Cohen and Ainley 2000; Wyn and Woodman 2006). Whereas many researchers remain convinced that this is a valuable field of study (for example MacDonald *et al.* 2001; Bynner 2005; Roberts 2003, 2007; Côté and Bynner 2008). We recognise a continuing value in researching the social and economic lives of young people with the aim of better understanding the factors and processes that generate different, and usually unequal, outcomes in later life. This is not to argue that older patterns of youth transitions have not undergone change. Rather it is to argue that the study of transitions should still be a research priority.

Youth transitions appear to have become more diverse over the post-war period. MacDonald and Marsh (2005) assert that there has been a continuing search within the sociology of youth for the most appropriate metaphor to describe transitions within the youth phase. Various terms such as 'careers', 'pathways', 'trajectories', and 'routes' have been deployed by youth researchers. This point is supported by even the most cursory review of work such as Irwin (1995), Evans and Furlong (1997), Hodkinson and Sparkes (1997) and Cieslik and Pollock (2002), and more recently Heinz (2009), Goodwin and O'Connor (2009) and du Bois-Reymond (2009).

We note that MacDonald and Marsh (2005) state that particular authors have suggested that certain metaphors emphasise greater degrees of individual agency. At the current time we consider that the choice of metaphor is largely a matter of preference. This is because we can think of no obvious theoretical reasons why one has more explanatory power than another.

The postponement of the transition from education to employment in more recent cohorts is not in question. Although Côté and Bynner (2008) usefully remind us that extended transitions are not new, although the sections of the youth population to which they apply have changed. As Craine (1997) highlights, sociologists have deployed a series of adjectives such as 'long', 'broken', 'fractured' and 'uneasy' to describe the lengthening of the timing of these transitions. Once again we consider that these descriptors are largely a matter of taste.

We observe that integral to such discussions are commentaries on changes in the linearity of youth transitions (see du Bois-Reymond 2009). A noteworthy example is the work of Wyn and Woodman (2006) which argues against the idea of a linear process of transitions. Furlong *et al.* (2005) assert that linearity has been replaced by a protracted set of movements, that are less predictable, involve frequent breaks, backtracking and the blending of statuses. The evidence however is not unequivocal. For example Goodwin and O'Connor (2005) report historical analyses which highlight common experiences between young people in the 1960s and more recent cohorts. Likewise, Pollock (2002) reports that labour market instability thought to be typical of the contemporary labour market was not uncommon earlier in the twentieth century.

On reflection we conclude that commentaries on the degree of change in the linearity of youth transitions are not of direct concern to the current analyses. These commentaries are however, often entangled with ideas related to the speed of youth transitions. Jones (2002) conceives of fast and slow-tracks, and Bynner *et al.* (2002) similarly refer to fast and slow lanes. Furlong and Cartmel (1997) develop the analogy of young people travelling in cars with different speeds, notably Jaguars and Porsches rather than Ladas and Skodas (pp. 6-7). Wallace (1987) refers to unemployed 'sinkers' and mainly employed 'swimmers'. There is an inherent polarisation in these conceptions of youth transitions and this supports the idea of a 'missing middle', which Roberts (2011) espouses.

The Missing Middle

A focus on the analysis of young people at risk of social exclusion has been long running within sociology. Sociologists of youth are in general agreement that the background against which young people grew up in the closing decades of the twentieth century was

transformed by dramatic changes in education, employment, unemployment, training and access to welfare benefits (Gayle, Lambert and Murray 2009b). Our initial suspicion is that these changes had an organising influence on research agendas within the sociology of youth. We will argue that these organising effects are consistent with the idea that the sociology of youth may have neglected to focus on 'ordinary' young people.

Within the confines of this paper, it is not possible to provide a detailed overview of the changes in education in the post-war period. Therefore we focus on a small number of key points that are potentially related to the conception of a 'missing middle'. There is ample evidence that within the sociology of youth and education there has been a long running orientation towards the analysis of underachievement (Douglas 1964; Douglas *et al.* 1968; Lacey 1970; Wedge and Prosser 1973; Corrigan 1979; Willis 1977; Rutter 1979). By contrast ordinary pupils that have made modest or average progress have been annexed from these accounts.

In the decades following the Second World War the vast majority of young people in the UK left education at the first opportunity (Furlong and Cartmel 2007). Banks *et al.* (1992) note that there was always a minority of young people who remained in education for long periods before entering the labour market but only a minority made an early transition straight from school-to-work by the late 1980s. In more recent decades this situation has reversed and official data illustrate that an increasing proportion of young people have remained in education (see Department of Employment 1993; FEFC 2000; Social Trends 2006), and this has been the focus of sociological analyses (notable examples include Paterson and Raffe 1995; Biggart and Furlong 1996; Cregan 2001).

In general the changes in education that have been introduced in the last quarter of a century have largely targeted low attainment and low rates of participation. One noteworthy change was the introduction of explicit attainment targets and the publication of league tables and other performance information. As Goldstein (1997) assert, during the 1980s and early 1990s, considerable attention was given to school effectiveness research and to the production and use of so called 'performance indicators' as measures of school efficacy.

Despite the methodological weakness of some of this early work, school effectiveness research flourished and became more sophisticated both in the kinds of data used and the statistical modelling techniques applied (Goldstein and Woodhouse 2000). Examples include Woodhouse and Goldstein (1988), Goldstein and Spiegelhalter (1996), Plewis and Goldstein (1997), Coe and Fitz-Gibbon (1998) and Levačić and Woods (2002), but these are only a few examples of the large number of papers that were produced, and the popularity of this area is evidenced by the establishment of journals such as *School Effectiveness and School Improvement.* An unintended consequence of the focus on school performance was to move the spotlight from poor achievement *per se*, and on to pupils' performance in relation to targets and benchmarks.

The final decades of the twentieth century witnessed startling changes in the youth labour market. Historically there was a high concentration of young school leavers that entered the labour market in a restricted number of industrial and occupational sectors in Britain (Ashton *et al.* 1982). Maguire and Maguire (1997) state that since the 1980s the demand for youth labour has declined dramatically, this was primarily because of the reduction in

labour-intensive industries, especially in the manufacturing sector. They further assert that concurrently the impact of technology, increased business competition and organisational restructuring, contributed to reducing the demand for routine clerical workers. Simultaneously there was a sharp decline in the number of apprenticeships, which is well documented (see Gospel 1995).

The growing insecurity of youth employment, and the emergence of non-standard work, has been highlighted by Furlong and Cartmel (2007). Green and Owen (2006) report that there are substantial numbers of jobs at the lower end of the labour market with limited skills requirements despite the professionalization of employment. It is in these sectors that younger workers are employed and sociological analyses of youth have focussed on this area of the labour market.

Quintini *et al.* (2007) argue that the youth labour market is characterised by much turnover. They further argue that young people with low educational attainment can find it hard to escape from spells of unemployment/inactivity. These spells are often punctuated by periods of employment on temporary contracts. They also recognise that many other young people progress fairly smoothly into jobs with good career prospects. MacDonald and Marsh (2005) draw attention to the prevalence of 'fiddly' jobs, where less qualified young people commonly experience a succession of insecure, unpredictable and informally organized work. These 'fiddly' jobs are frequently located within the service sector and paid at rates that are below the minimum wage.

Youth unemployment has always been viewed as a salient social problem in industrial economies and therefore it has received a great deal of sociological attention (see Ashton *et al.* 1982; Atkinson and Rees 1982; Raffe 1984, 1988; Roberts, 1984, 1997; Brown and Ashton 1987; Furlong 1987; Bynner 1996; Maguire and Maguire 1997). The growing levels of youth unemployment in the 1970s and 1980s are well documented (Casson 1979; Jackson 1985; Gallie and Marsh 1994). It is well known that youth unemployment is more sensitive to economic pressures than adult unemployment (Makeham 1980; O'Higgins 2001).There has been a rapid increase in youth unemployment in the current recession and, for example, Bell and Blanchflower (2010) argue that it is once again one of the most pressing economic and social problems.

These patterns of economic restructuring have led to a number of policy responses, most notably the widespread introduction of 'youth training' provisions. There was already an established concern about the adequacy of vocational training in the UK (Brown and Evans 1994; Bash and Green 1995; Hodkinson and Sparkes 1995). The UK has been criticised for failing to address its low skills equilibrium (see Chitty 1991; Whiteside 1992). Youth training received a reasonably large amount of analytical attention (see Raffe 1982, 1983; Chapman and Tooze 1987; Stoney and Lines 1987; Roberts 1984; Deakin 1996). The introduction of youth training was coupled with a number of reforms to the welfare system that changed young people's entitlement to state benefits, and the effects of these changes were the subject of analyses (see Maclagan 1992; Irwin 1995; Dean 1997; CPAG 1998; Mizen 2004).

More recent policy initiatives aimed at training young workers, such as Modern Apprenticeships, have also been the subject of analyses (see Gospel and Fuller 1998; Gray and Morgan 1998; Fuller and Unwin 2003a, 2003b; Brockmann, Clarke and Winch 2010). Some accounts have been particularly critical. For example Fuller (2004) argues that

apprenticeships are commonly regarded as an undemanding route for low attaining students, and increasingly come to be characterised by poor standards and variable quality of provision.

As far as we are aware the acronym NEET, Not in Education, Employment or Training, has its genesis in a Social Exclusion Unit Report (1999). This group had previously been labelled as 'Status Zer0' (see Williamson 1997). The group of young people who are termed NEET have received a significant amount of research attention (notable examples include Bynner and Parsons 2002; Popham 2003; Furlong 2006; Robson 2011).

The provision of further education expanded in the 1980s (FEFC 1997; Smithers and Robinson 2000; Hyland and Merrill 2003). A reasonable amount of analytical attention was focussed on studying the outcomes and experiences of post-16 learners (notable examples include Gray *et al.* 1993; Tight *et al.* 1996; Tight 1998; McVicar and Rice 2001). Much of this work has located with the wider sub-area of lifelong learning (see Field 2000).

During the early 1990s the UK moved away from a system of elite to a system of mass higher education (Daniel 1993; Dearing 1997; Tight 2009). There are now a large number of universities and record numbers of young people enter higher education. Female participation rates have outstripped male rates (BIS, 2012). There have been numerous sociological analyses of young people and higher education. Researchers have been prolific in studying participation and issues associated with access and opportunities (examples include Paterson 1997; Connor 2001; Archer *et al. 2003;* Forsyth and Furlong 2003; Furlong 2003; Gorard 2005; Reay *et al*. 2005).

In summary the changes in education, employment, unemployment, training and access to welfare benefits which took place in the closing decades of the twentieth century are undeniable. These changes could conceivably have had an organising influence on research agendas within the sociology of youth. It is therefore possible that within the sociology of youth more attention has been focussed on the young people that are likely to experience social exclusion as a result of these structural changes.

Conterminously, the changes in educational provisions and opportunities have led to new patterns and trends in participation in education and these changes have been the subject of empirical analyses. These opportunities have largely been taken up by more educationally qualified young people. Taken together there is some evidence of a polarised focus in youth research. Research agendas appear to have focussed on young people at risk of social exclusion, and those that do well educationally. We conclude that whether or not there is a neglected 'middle' group should largely be an empirical question.

The British Household Panel Survey Data

Roberts (2011) states that 'establishing where such ordinary youth reside, ascertaining social characteristics and how qualified they might be is achievable through secondary analysis of data sets' (p. 22). Studies of youth transitions routinely rely on cross-sectional survey datasets and achieve much progress, especially in the analysis of trends over time. The theoretical conception of a transition is inherently temporal and therefore repeated contacts (i.e. longitudinal) data generally have a greater utility for the study of youth transitions. The UK leads the world in the collection of birth cohort datasets and these

datasets have a myriad of information appropriate for the study of youth transitions. We argue that the suitability of the three older birth cohorts (1946, 1958 and 1970) for the study of contemporary youth transitions is questionable, however we note that they are still used for youth transitions research (see Yates *et al.* 2010). There was a lacuna in the UK birth cohort study portfolio because there was no new national birth cohort established in either the 1980s or the 1990s. Gayle (2005) asserts that the paucity of cohort data for this time has had a negative impact on youth transitions research and he argues for using British Household Panel Survey data. Gayle, Lambert and Murray (2009a) and more recently Murray (2011) successfully undertake youth transitions research using BHPS data.

The BHPS, although not specifically collected as youth data, offers a potential resource for studying the lives of young people growing up in Britain in the 1990s (Gayle 2005). The BHPS is a nationally representative survey of individuals within households which was conducted from 1991 to 2008, and has been subsumed into *Understanding Society* (The UK Household Longitudinal Survey). The BHPS was an annual survey of approximately 10,000 individuals living within over 5,000 households. From 1994 data were also collected on children in the households aged 11-15 (known as the British Youth Panel). At age sixteen a young person would enter the adult sample of the BHPS and undertake the full annual adult interview (Taylor *et al.* 2010). This feature means there is a great potential for following young people from childhood, through the youth period and into adulthood.

The analytic sample in the present paper consists of young BHPS members who participated in the youth panel, and subsequently aged into the adult BHPS sample at 16. To present a coherent picture of a contemporary cohort we focus specifically on individuals from England and Wales born in the 1980s. We link information regarding the young persons' parents and household when they were undertaking their GCSE courses (i.e. at age 14-16) with their school GCSE attainment at age 16-17. Then we link this information to details concerning subsequent educational activities and employment in early adulthood.

Measuring the Missing Middle

The General Certificate of Secondary Education (GCSE) were introduced in the later 1980s. GCSEs are the standard qualifications that are undertaken by pupils in Year 11 (age 15-16) in England and Wales (Department of Education 1985; Mobley *et al.* 1986; North 1987). We argue that GCSE attainment is worthy of sociological attention because these are public qualifications and mark the first major branching point in a young person's educational career. Because of the progressive structure of the British education system poor GCSE attainment is a considerable obstacle which precludes young people from pursuing more advanced educational courses. Young people with low levels of GCSE attainment are usually more likely to leave education at the minimum school leaving age and their qualification level frequently disadvantages them in the labour market (Gayle *et al.* 2009b).

It is also plausible that low levels of qualifications are also likely to have a longer term impact on experiences in the adult labour market. GCSEs are important examinations since successful results are often a requirement for progressing to study for A' Levels, which are themselves a common requirement for university entry. For young people who choose to leave education at the minimum age, their GCSE examination results are often their only educational qualifications (Leckie and Goldstien 2009).

GCSEs are usually a mixture of assessed coursework and examinations (Ashford, Gray and Tranmer 1993). Generally each subject is assessed separately and a subject specific GCSE is awarded. It is usual for pupils to study for about nine subjects, which will include core subjects (e.g. English, Maths and Science) and non-core subjects. GCSEs are graded into discrete ordered categories, historically the highest being A, and the lowest G. From 1994 a higher grade of A* was introduced (Yang and Woodhouse 2001).

There is no single universally recognised and agreed upon measure of GCSE attainment. This problem of measurement extends more generally in education and Prandy *et al.* (2004) argue that 'the question of how to measure education and qualifications – or indeed what 'measure' means – raises interesting issues…Since there is no agreed standard way of categorising educational qualifications' (p. 4). Consequently, at the current time there is no standard measure of GCSE attainment that clearly defines a 'middle' group.

As a starting point we characterise the 'middle' in our analyses in relation to the attainment of GCSE qualifications at grades A* to C. The BHPS has only limited information on GCSE attainment, but we are able to construct two measures for the present analyses. The first is unproblematic and is the number of GCSEs attained at grades A*-C (table 1). The second, is a categorical operationalisation of GCSE attainment which we constructed in an attempt to identify the 'middle' specifically.

The attainment of five or more GCSEs at grades A* - C is a standard benchmark, for example in school performance league tables (Leckie and Goldstein 2009). This measure is routinely employed in a wide variety of social science applications (e.g. Gayle *et al.* 2003; Connolly 2006a; Tunstall *et al.* 2011; Sullivan *et al.* 2011). It is a relatively crude measure but educationalists believe that it is a suitable indicator of performance. This measure is not without its criticisms, for example Connolly (2006b) notes that the GCSE benchmark 'tends to draw artificial lines in terms of attainment levels'. Gorard and Taylor (2002) point out that a limitation of this measure is that it treats an A* in music, a B in physics and a C in sociology similarly in the determining whether or not a pupil has five GCSEs at grades A*-C. More recently Government league tables have included a measure of the proportion of pupils gaining five or more GCSEs at grades A*-C including maths and English. This alternative measure is initially substantively attractive, but it cannot be recovered from the BHPS data.

Our categorical outcome variable (see table 2) of GCSE attainment splits the young people into three categories:

None (those who gained no GCSEs at grades A-C)*

Middle (those who gain one to four GCSEs at grades A-C)*

Benchmark (those who gained five or more GCSEs at grade A-C)*

Looking at GCSE attainment, 44% of the sample attained the benchmark of five plus GCSEs at grade A*-C (see table 2). This value is consistent with official figures over this period (DFEE 2000; DfES 2007). Bivariate statistics indicate that there are significant relationships between the variables and GCSE attainment categories.

We restrict our analyses to a set of established variables that are implicated in previous studies of educational attainment (for example Drew *et al*. 1992; Drew 1995; Demack *et al.*

2000; Gayle *et al.* 2003; Connolly 2006a; Gayle *et al*. 2009; Sullivan *et al*. 2011). The explanatory variables are gender, parental social class, parental education, and housing tenure. Parental social class is operationalised as the three category version of the National Statistics Socio-Economic Classification, which classifies parents as holding either managerial/professional occupations (the most advantaged), intermediate occupations, or routine/manual occupations (the least advantaged) (Rose and O'Reilly 1998). Parental education is a three category variable which classifies parents with degree level qualifications, those with qualifications at a sub-degree level qualifications (e.g. school qualifications) and those parents who have no qualifications. School year is included in the multivariate analyses as a control variable because of the changing distribution of GCSE attainment (DfES 2007). The descriptive statistics and bivariate associations for the variables are reported in tables 1 and 2.

Table 1: Descriptive Statistics – Number of GCSEs at grades A*-C and explanatory variables.

Variable	Category	Mean	Standard Error of the Mean	Median
GCSE Attainment	*Number of GCSEs (A*-C)*	4.25	1.56	3
Gender	*Female*	4.78	0.23	5
	Male	3.74	0.21	2
Parental Social Class (3 Category NS-SEC)	*Routine/Manual*	3.23	0.26	1
	Intermediate	3.66	0.32	3
	Managerial/Professional	5.18	0.23	6
Parental Education	*None*	2.44	0.39	0
	Sub-Degree (e.g. school level qualifications)	4.10	0.18	3
	Degree Level	5.75	0.38	8
Housing Tenure	*Renters (Private & Local Authority)*	2.72	0.35	0
	Home Owners	4.57	0.17	4

Notes: British Household Panel Survey 'rising 16s', England and Wales, unweighted data, n=713.

Table 2: Descriptive Statistics – Categorical GCSE (A*-C) attainment variable and explanatory variables.

Variable	Category	All	GCSE Attainment (A*-C)		
			None	Middle	Benchmark
		Frequency (Column %)	Frequency (Row %)		
GCSE Attainment	*None (No GCSEs)*[1]	265(37)			
	Middle (Any GCSEs Grade A-C)	131(18)			
	Benchmark (5+ GCSEs Grade A-C)	317(44)			
Gender	*Female*	349(49)	117(34)	56(16)	176(50)
	Male	364(51)	148(41)	75(21)	141(39)
					χ^2 = 9.93 @ 2d.f., p≤0.01
					Cramér's V = 0.11
Parental Social Class (3 Category NS-SEC)	*Routine/Manual*	227(32)	110(48)	41(18)	76(33)
	Intermediate	146(20)	60(41)	28(19)	58(40)
	Managerial/Professional	340(48)	95(28)	62(18)	183(54)
					χ^2 = 29.84 @ 4d.f., p≤0.001
					Cramér's V =0.14
					gamma = 0.29
Parental Education	*None*	077(11)	41(53)	18(23)	18(23)
	Sub-Degree (e.g. school level qualifications)	496(69)	185(37)	96(19)	215(43)
	Degree Level	140(20)	39(28)	17(12)	84(60)
					χ^2 = 28.33@ 4d.f., p≤0.001
					Cramér's V =0.14
					gamma = 0.31
Housing Tenure	*Renters (Private & Local Authority)*	124(17)	68(55)	22(18)	34(27)
	Home Owners	589(83)	197(33)	109(19)	283(48)
					χ^2 = 22.45@ 2d.f., p≤0.001
					Cramér's V =0.18

Notes: British Household Panel Survey 'rising 16s', England and Wales, unweighted data, n=713.

[1]None (No GCSEs A*-C), *Middle (those who gain one to four GCSEs at grades A*-C),* Benchmark (At least 5 GCSEs Grade A*-C).

In the first stage of the analysis we explore the number of GCSEs grade A*-C attained by the sample. There are a variety of possible generalized linear models that could be estimated. The standard linear regression analysis is not suitable for count data (Cameron and Trivedi 1998). A common strategy for analysing count data is the estimation of a Poisson regression model. In the present analysis this may also be inappropriate as the data are over-dispersed (i.e. the variance is significantly greater than the mean), and there is an over-representation of zero (i.e. no GCSEs A*-C) observations (for a technical discussion of these issues see Long 1997). Lambert (1992) outlines the Zero Inflated Poisson (ZIP) model. In essence this is a model for a two-state process. In the present context this involves a logistic model which estimates the attainment of no GCSEs at grades A*-C, followed by a Poisson model of the number of GCSEs at grades A*-C.

Table 3 reports the results of the ZIP model. The upper panel of table 3 reports the results of the logistic model estimating zero GCSE attainment, and the lower panel reports the results of the Poisson model of the number of GCSEs attained at grades A*-C. Males have significantly lower chances than females of obtaining any GCSEs at grades A*-C. Young people with managerial/professional parents have significantly lower chances of gaining no GCSEs at grades A*-C. Young people living in homes owned by their parents also had lower chances of attaining no GCSEs at grades A*-C.

Given that they have attained at least one GCSE (A*-C) males on average gain significantly fewer GCSEs (A*-C). Young people whose parents have degree or sub-degree qualifications on average gain significantly more GCSEs (A*-C) than young people whose parents have no educational qualifications. Parental social class does not have a significant effect on the number of GCSEs attained however. The overall message emerging from the model is that the predictors in the two stages are not common. We deduce that this indicates that there are at least two processes this partially supports the idea of different sub-groups of GCSE achievers. In the next section we explicitly focus on three groups in an attempt to document the experiences of the 'middle' group.

Table 3: Zero-inflated Poisson[1] estimation of number of GCSEs (A*-C) (Model 1).

Variable	Coefficient		Standard Error
Zero GCSE attainment (Logistic estimation)			
Female	0.00		(0.00)
Male	0.34	*	(0.16)
Parental Social Class (3 Category NS-SEC)			
Routine/Manual	0.00		(0.00)
Intermediate	-0.22		(0.22)
Managerial/Professional	-0.64	**	(0.20)
School Year	-0.02		(0.03)
Parental Education			
None	0.00		(0.00)
Sub-Degree (e.g. school level qualifications)	-0.35		(0.26)
Degree Level	-0.51		(0.33)
Home Owners			
Renters (Private & Local Authority)	0.00		(0.00)
Home Owners	-0.62	**	(0.21)
Constant	0.57		(0.32)
Number of Observations	265		
Non-zero GCSE attainment (Poisson estimation)			
Female	0.00		(0.00)
Male	-0.15	***	(0.04)
Parental Social Class (3 Category NS-SEC)			
Routine/Manual	0.00		(0.35)
Intermediate	-0.01		(0.06)
Managerial/Professional	0.05		(0.05)
School Year	0.00		(0.01)
Parental Education			
None	0.00		(0.00)
Sub-Degree (e.g. school level qualifications)	0.22	**	(0.08)
Degree Level	0.40	***	(0.09)
Home Owners			
Renters (Private & Local Authority)	0.00		(0.00)
Home Owners	0.08		(0.06)
Constant	1.62		(0.09)
Number of Observations	448		
Total Number of Observations	713		
Log-likelihood	-1633.65		

Notes: British Household Panel Survey 'rising 16s', England and Wales, unweighted data.

[1] We report the results of a Zero Inflated Poisson model (ZIP) although we considered alternative models. The estimated zero proportions from the Poisson, Negative Binomial and ZIP models are 3%, 31% and 39% respectively. The observed zero proportion was 39%, and therefore, we contend that the ZIP model is the most appropriate for the present data.

Of specific interest in this paper are the differences in educational attainment between the higher achieving educational grouping ('benchmark'), low achievers ('none') and 'middle' achievers. To explore further the possible existence of a 'middle' group in GCSE attainment we estimate a multinomial logistic model (model 2), reported in table 4. First, looking at membership of the 'None' group (those who attain no GCSEs at grades A*-C) in comparison to the 'Middle' group (1-4 GCSES at grades A*-C) there is no overall significant effect of parental social class or parental education. However, young people with managerial/professional parents are less likely to gain no GCSEs at grades A*-C.

Second, we look at membership of the 'benchmark' group in comparison to membership of the 'middle' group. Gender is significant and males are less likely to be in the higher attaining group. Parental education is also significant, young people whose parents hold degree or sub-degree qualifications are more likely to achieve the benchmark than young people whose parents have no qualifications.

Given the theoretical conception of a 'middle' group, it reasonable to organise young peoples' GCSE attainment into the three broad categories that we have suggested. However the results from the multinomial logistic model do not fully persuade us that the boundaries between those in the middle and benchmark groups are as clearly defined empirically. This analysis is an initial attempt and therefore we leave these concerns aside temporarily, and in the next section we explore the relationship between membership of the middle group and later educational and employment activity.

Table 4: Multinomial Logistic regression on GCSE (A*-C) Attainment Categories (Model 2).

	Coefficient		Standard Error
None (No GCSEs A*-C)			
Female	0.00		(0.00)
Male	-0.06		(0.22)
Parental Social Class			
Routine/Manual	0.00		(0.00)
Intermediate	-0.21		(0.30)
Managerial/Professional	-0.61	*	(0.27)
School Year	-0.05		(0.04)
Parental Education			
None	0.00		(0.00)
Sub-Degree (e.g. school level qualifications)	0.13		(0.33)
Degree Level	0.59		(0.45)
Home Owners			
Renters (Private & Local Authority)	0.00		(0.00)
Home Owners	-0.41		(0.29)
Constant	1.46	***	(0.41)
Middle (1-4 GCSEs A*-C)			
Benchmark (5+ GCSEs Grade A*-C)			
Female	0.00		(0.00)
Male	-0.60	**	(0.21)
Parental Social Class			
Routine/Manual	0.00		(0.00)
Intermediate	0.02		(0.31)
Managerial/ Professional	-0.03		(0.27)
School Year	-0.04		(0.04)
Parental Education			
None	0.00		(0.00)
Sub-Degree (e.g. school level qualifications)	0.82	*	(0.37)
Degree Level	1.66	***	(0.47)
Home Owners			
Renters (Private & Local Authority)	0.00		(0.00)
Home Owners	0.32		(0.32)
Constant	0.23		(0.46)
Log-likelihood	-706.72		
Nagelkerke R^2	0.11		
McFadden's Adjusted R^2	0.01		
Total Number of Observations	713		

Notes: British Household Panel Survey 'rising 16s', England and Wales, unweighted data.

Routes into Young Adulthood

In this second stage of the analysis we utilise the longitudinal elements of the BHPS to follow the young people in our sample into early adulthood. We are able to describe the subsequent economic activities of young people who fall in the 'middle' group of GCSE attainment, and how they compare with their peers. The longitudinal dataset has a slightly smaller sample size (n= 420), because many of the young people included in the earlier analysis had not reached age twenty the final wave of BHPS data collection. A small number were lost due to survey attrition. A full discussion of attrition in the BHPS is provided by Uhrig (2008).

Descriptive statistics of the economic and educational activities of the longitudinal sample at age twenty are reported in table 5. As may be expected a greater proportion of those who were in the higher attaining group ('benchmark') were still in education at age twenty. The lowest attaining group (none) make up the over half of those who are unemployed at age twenty.

We modelled activity at age twenty using a multinomial logistic model (table 6, model 3). The base category is in education, which is compared with employment and unemployment. At age twenty young people with 5 or more GCSEs at grades A*-C ('benchmark') are significantly less likely to be unemployed rather than in education compared with those with 1-4 GCSEs at grades A*-C ('middle'). The 'benchmark' group are also less likely to be in employment than their counterparts with 1-4 GCSEs at grades A*-C ('middle'). At age twenty young people without any GCSEs at grades A*-C ('none') are not significantly less likely to be unemployed, but are less likely to be employed than those with 1-4 GCSEs at grades A*-C ('middle').

We conclude that the 'middle' group make the transition into employment more readily than other groups of young people. This is consistent with the idea of these 'ordinary' young people making smooth transitions. We envisage that higher achievers are more likely to still be engaged in further and higher education at age twenty. Some of those with no GCSEs at grades A*-C are still engaged in education at age twenty. We conjecture that some young people may be attempting to catch-up with their peers. Others might be sheltering in education. A similar idea is suggested by Biggart and Furlong (1996), however it need further empirical investigation.

Table 5: Frequencies and percentages of the employment / education status of sample members at age 20.

Economic Activity at age 20	**All**	**GCSE Attainment (A*-C)**		
		None	**Middle**	**Benchmark**
	Frequency (Column %)	**Frequency (Row %)**		
Unemployed[1]	45(11)	23(51)	10(22)	12(27)
Employed	227(54)	89(39)	56(25)	82(36)
Education	148(35)	38(26)	11(7)	99(67)
				χ^2 = 45.41@ 4d.f., p≤0.001
				Cramér's V =0.23
				gamma = 0. 40

Notes: British Household Panel Survey 'rising 16s' at age 20, England and Wales, unweighted data, n=420.
[1]The 'Unemployed' category includes sample members who are otherwise out of the labour market.

Table 6: Multinomial logistic regression of main activity at age 20 (Model 3).

	Coefficient		Standard Error
Education			
Unemployed			
GCSE Attainment (A*-C)[1]			
None (No GCSEs A*-C)	-0.40		(0.55)
Middle (1-4 GCSEs A*-C)	0.00		(0.00)
Benchmark (5+ GCSEs Grade A*-C)	-1.74	**	(0.58)
Female	0.00		(0.00)
Male	-0.78	*	(0.40)
Parental Social Class			
Routine/Manual			
Intermediate	-0.21		(0.56)
Managerial/Professional	-0.45		(0.50)
School Year	0.06		(0.07)
Parental Education			
None			
Sub-Degree (e.g. school level qualifications)	-1.22	*	(0.62)
Degree Level	-2.93	**	(1.00)
Home Owners	-2.06	***	(0.58)
Renters (Private & Local Authority)			
Home Owners			
Constant	3.11	***	(0.93)
Employed			
GCSE Attainment (A*-C)			
None (No GCSEs A*-C)	-0.86	*	(0.40)
Middle (1-4 GCSEs A*-C)	0.00		(0.00)
Benchmark (5+ GCSEs Grade A*-C)	-1.75	***	(0.38)
Female	0.00		(0.00)
Male	-0.19		(0.24)
Parental Social Class			
Routine/Manual			
Intermediate	0.33		(0.37)
Managerial/Professional	-0.81	**	(0.31)
School Year	-0.03		(0.04)
Parental Education			
None			
Sub-Degree (e.g. school level qualifications)	-0.37		(0.51)
Degree Level	-0.90		(0.57)
Home Owners	-0.66		(0.49)
Renters (Private & Local Authority)			
Home Owners			
Constant	3.32	***	(0.76)
Log-likelihood	-355.25		
Nagelkerke R^2	0.29		
McFadden's Adjusted R^2	0.10		
Total Number of Observations	420		

Notes: British Household Panel Survey 'rising 16s' at age 20, England and Wales, unweighted data.
Outcome: Still in Education, Unemployed (or otherwise out of the labour market), Employed.

Conclusions

We strongly believe that a thorough systematic review of the sociology of youth should be undertaken before any definite claims are made stating that the 'middle' group have been neglected. In the meantime it is reasonable to conclude that contemporary commentaries on youth transitions have deployed terminologies that indicate a branching into slower and faster transitions. Faster transitions are usually into lower skilled and lower paid employment, or into training. In some cases these faster transitions from education lead into unemployment. By contrast slower transitions are characterised by longer engagement in education, usually as a result of success and achievement. There is an inherent divergence in these conceptions of youth transitions, and this supports the idea of a 'missing middle'. Expressed colloquially, this division is between the elites and the NEET.

Our initial position that the existence of a missing group should largely be a matter of empirical investigation is further strengthened. This is our first attempt at identifying the 'missing middle' and to explore the relationship between being 'stuck in the middle' and activities in early adulthood. The analyses presented above indicate that there are clear differences between those who do not obtain A*-C grade GCSEs and other groups of young people who perform better at GCSE level. The categorical definition of GCSE attainment that we have operationalised does indicate that there are some differences in the outcomes for the three groups. Those that achieve the benchmark of five or more GCSEs at grades A*-C are more likely to remain in education for longer. But we also observe longer educational participation for some young people with the poorest GCSE results. The 'middle' group make the transition from education into employment more straightforwardly. The consequences of these successful early transitions into employment may have consequences later in the life course, and this is an area that requires further research.

A decisive message is that the present analysis does not indicate that crisp lines of distinction can be drawn that allow the identification of a 'middle' group. Therefore we are suitably vigilant about making extended claims about the 'middle' group without further empirical investigation. These coarse educational groupings may contain a heterogeneous mix of young people. Indeed Connolly (2006b) warns that there are great limitations to analyses which shoehorn individuals into large groupings. Therefore in future work we intend to further investigate the composition of the 'middle group'. Indeed, we note that a colleague reports encouraging analyses, where he identifies two middle groups through latent variable analysis of highly detailed GCSE results for a single cohort of pupils in the early 1990s (Playford 2011). Therefore we are reassured that making further analytical attempts to classify the 'middle' group is a sensible strategy.

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